



BRUHAT BANGALORE MAHANAGARA PALIKE

Improvements To Road, Drain And Footpath In Kodigehalli
Main Road And Abutting Cross Roads In Ward No.8,
Kodigehalli

(10)

008-17-000035



Detailed Project Report

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CONSULTING ENGINEERS AND DESIGNERS

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KEY MAP -Main Road And Cross Roads Of Kodigehalli Ward





BRUHAT BANGALORE MAHANAGARA PALIKE

**Project: Improvements to Road, Drain and Footpath in kodigehalli Main Road and abutting Cross Roads
in Ward No.8, Kodigehalli**

								Est Cost: =70.0Lakh	
Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M200-13.1. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By mechanical means, A. Cement concrete Grade M-15 & M-20 (P.No.137, I.No.18.20 of PW,P&IWTD SR 2016-17)								
	kodige halli	Cum							
	AK colony 1st A cross road		1	20.00	0.90	0.10	1.80	466.20	839.16
2	Removing and Resetting of Footpath Slab (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Drain Cover	Sqm							
	Hanumaiyya layout 5th main road								
	Ch 0-290 LHS		1	265.00	0.90	--	238.50		
	Ch 0-290 RHS		1	290.00	0.90	--	261.00		
							499.50		
	Consider 15% Missing slabs and damaged slabs						74.93		
							424.58	132.50	56256.19
3	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	BS Slab Drain	Sqm							
	Hanumaiyya layout								
	1st cross road								
	ch 0-25		2	25.00	1.20	--	60.00		
	2nd cross road								
	ch 0-45		2	45.00	0.90	--	81.00		
	3rd cross road								
	ch 0-55		2	45.00	0.90	--	81.00		
	4th c/s road								
	ch 0-70		2	40.00	0.90	--	72.00		
	AK colony main road		1	145.00	0.70	--	101.50		
	1st cross road								
	ch 0-25		2	15.00	1.80	--	54.00		
	2nd cross road								
	ch 0-45		2	25.00	1.80	--	90.00		
	3rd cross road								
	ch 0-55		2	30.00	1.80	--	108.00		
	4th c/s road								
	ch 0-70		2	15.00	1.80	--	54.00		
	AK colony main road		1	30.00	1.80	--	54.00		
							755.50		
	Consider 20% for missing and Damage Slabs						-151.10		
							604.40	80.56	48690.46

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
4	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Hanumaiyya layout								
	5th main road		2	290.00	0.60	0.70	243.60		
	1st cross road								
	ch 0-25		2.00	25.00	0.70	0.60	21.00		
	2nd cross road								
	ch 0-45		2.00	45.00	0.70	0.60	37.80		
	3rd cross road								
	ch 0-55		2.00	55.00	0.70	0.60	46.20		
	4th c/s road								
	ch 0-70		2.00	70.00	0.70	0.60	58.80		
	AK colony main road								
	Desilt LHS		1.00	145.00	0.70	0.75	76.13		
	new drain RHS		1.00	145.00	1.10	0.80	127.60		
	Ak colony 1st A cross road		1.00	35.00	1.10	0.80	30.80		
	SRK school road		1.00	115.00	1.10	0.80	101.20		
	kodige halli mn road ganesha temple to 60ft road								
	Desilt		2.00	170.00	0.60	0.80	163.20		
	new drain		2.00	70.00	1.10	1.05	161.70		
	Culvert								
	kodige halli ward		5	6.00	0.80	0.60	14.40		
	culverts for c/s roads in 5th main		1	6.00	1.60	1.10	10.56		
	Over Burden Earth		2	100.00	1.20	0.50	120.00		
							1212.99	192.92	234009.07
5	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							
	Hanumaiyya layout								
	AK colony main road		1.00	145.00	1.10	0.10	15.95		
	Ak colony 1st A cross road		1.00	35.00	1.10	0.10	3.85		
	SRK school road		1.00	115.00	1.10	0.10	12.65		
	kodige halli mn road ganesha temple to								
			2.00	70.00	1.10	0.10	15.40		
	Culvert								
	culverts for c/s roads in 5th main		1.00	6.00	1.60	0.15	1.44		
	AK colony main road								
			2.00	145.00	0.30	0.10	8.70		
							57.99	5348.76	310174.59
6	Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17)								
	Bottom Slab	Cum							
	AK colony main road		1.00	145.00	0.90	0.15	19.58		
	Ak colony 1st A cross road		1.00	35.00	0.90	0.15	4.73		
	SRK school road		1.00	115.00	0.90	0.15	15.53		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	kodige halli mn road ganesha temple to 60ft road								
			2.00	70.00	0.90	0.15	18.90		
	Side Walls								
	AK colony main road		2	145.00	0.15	0.60	26.10		
	Ak colony 1st A cross road		2	35.00	0.15	0.60	6.30		
	SRK school road		2	115.00	0.15	0.60	20.70		
	kodige halli mn road ganesha temple to 60ft road								
			4	70.00	0.15	0.60	25.20		
	culverts for c/s roads in 5th main								
	Bottom Slab		1.00	6.00	1.30	0.25	1.95		
	walls		2.00	6.00	0.25	0.80	2.40		
							141.38	11032.48	1559716.86
7	KSRB - 4.9.2: Providing TMT steel reinforcement Fe500 for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebtrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.2 of PW, P&IWD SR 2016-17)								
	Consider 50Kgs/cum for Drain RCC Qty	Tonne		137.03	0.050	--	6.85		
	Consider 80Kgs/cum for Drain RCC Qty	Tonne		4.35	0.080	--	0.35		
							7.20	59413.00	427729.04
8	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWD SR 2016-17)								
	For BS Slab Drain / Missing	Sqm					151.10		
							151.10	825.74	124769.31
9	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of mataraials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWD S.R 2016-17)								
	Flagging Course / Raising of BS Drain	Cum							
	AK colony main road		1.00	145.00	0.45	0.45	29.36		
							29.36	4438.22	130306.14
10	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4(P.No.24, I.No.5.26.2 of PW, P&IWD SR 2016-17)								
	Flagging Course / Raising of BS Drain	Sqm							
	AK colony main road		1.00	145.00	--	0.40	58.00		
							58.00	961.42	55762.36
11	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWD S.R 2016-17)								
	Flagging Course / Raising of BS Drain	Sqm							
	AK colony main road		1	145.00	--	0.45	65.25		
							65.25	102.82	6709.01

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
12	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12,								
	Coping	Cum							
	AK colony main road		2.00	145.00	0.30	0.075	6.53		
							6.53	5767.46	37632.68
13	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	AK colony main road		1	145.00	1.20	--	174.00		
			1	145.00	0.90	--	130.50		
	AK colony 1st A cross		2	60.00	0.90	--	108.00		
	SRK school road		1	115.00	0.90	--	103.50		
	AK colony 1st B cross		1	40.00	0.90	--	36.00		
	Missing and Damaged Covering Slabs						74.93		
							626.93	1698.00	1064518.65
14	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Culvert Slab	Sqm							
	new culvert		1	6.00	1.50	--	9.00		
	Damaged slabs in AK colony		3	7.50	1.50	--	33.75		
	kodige halli mn road ganesha temple to 60ft road		2	70.00	0.90	--	126.00		
							168.75	4764.00	803925.00
15	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)								
	For Road Kerb	No.							
	AK colony main road		2	145.00	--	/0.45	644.00		
							644.00	331.78	213666.32
16	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.179, I.No. 24.1 of PW,P&IWTD SR 2016-17)								
	For Kerb Painting	Sqm							
	AK colony main road		2.00	145.00	--	0.35	101.50		
							101.50	63.60	6455.40
17	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Bad reaches		5.00	2.00	1.60	0.30	4.80		
			4.00	1.80	0.90	0.30	1.94		
			6.00	1.50	0.80	0.30	2.16		
			2.00	0.90	1.20	0.30	0.65		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
			13.00	1.50	1.00	0.30	5.85		
							15.40	154.76	2383.61
18	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density. complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	Bad reaches		5.00	2.00	1.60	0.25	4.00		
			4.00	1.80	0.90	0.25	1.62		
			6.00	1.50	0.80	0.25	1.80		
			2.00	0.90	1.20	0.25	0.54		
			13.00	1.50	1.00	0.25	4.88		
							12.84	1768.08	22693.31
	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kgl/sqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	Bad reaches		5.00	2.00	1.60	--	16.00		
			4.00	1.80	0.90	--	6.48		
			6.00	1.50	0.80	--	7.20		
			2.00	0.90	1.20	--	2.16		
			13.00	1.50	1.00	--	19.50		
							51.34	27.56	1414.93
19	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road Portion	Sqm							
	1st cross road								
	ch 0-25		1.00	25.00	4.00	--	100.00		
	2nd cross road								
	ch 0-45		1.00	45.00	4.00	--	180.00		
	3rd cross road								
	ch 0-55		1.00	55.00	4.30	--	236.50		
	4th c/s road								
	6th cross road		1.00	100.00	4.30	--	430.00		
	6th A Cross road		1.00	90.00	4.00	--	360.00		
	6th B cross road		1.00	100.00	5.00	--	500.00		
	ch 0-70		1.00	70.00	3.80	--	266.00		
	AK colony main road		1.00	145.00	6.00	--	870.00		
	Ak colony 1st A cross road		1.00	119.00	6.60	--	785.40		
	SRK school Road		1.0	110.00	4.50	--	495.00		
	For Bell Mouth at Cross road Approach		3	5.00	6.00	--	90.00		
							4312.90		
	Deduct prime coat						-51.34		
							4261.56	3.18	13551.76

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
20	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&I WTD SR of 2016-17)								
	For Laying DBM/ Profile Correction	Sqm							
	1st cross road								
	ch 0-25		1.00	5.00	2.00	--	10.00		
	2nd cross road								
	ch 0-45		1.00	5.00	3.60	--	18.00		
	3rd cross road								
	ch 0-55		1.00	10.00	2.35	--	23.50		
	4th c/s road								
	ch 0-70		1.00	10.00	4.25	--	42.50		
	6th croos road		1.00	10.00	3.60	--	36.00		
	6th A Cross road		1.00	20.00	1.35	--	27.00		
	6th B cross road		1.00	25.00	1.80		45.00		
	AK colony main road		1.00	20.00	4.35	--	87.00		
	Ak colony 1st A cross road		1.00	34.00	2.30	--	78.20		
	SRK school Road		1.00	42.00	1.20	--	50.40		
	Bad reaches		5.00	2.00	1.60	--	16.00		
			4.00	1.80	0.90	--	6.48		
			6.00	1.50	0.80	--	7.20		
			2.00	0.90	1.20	--	2.16		
			13.00	1.50	1.00	--	19.50		
	For Laying BC								
	1st cross road								
	ch 0-25		1.00	25.00	4.00		100.00		
	2nd cross road								
	ch 0-45		1.00	45.00	4.00	--	180.00		
	3rd cross road								
	ch 0-55		1.00	55.00	4.30	--	236.50		
	4th c/s road								
	ch 0-70		1.00	70.00	3.80	--	266.00		
	6th croos road		1.00	100.00	4.30	--	430.00		
	6th A Cross road		1.00	90.00	4.00	--	360.00		
	6th B cross road		1.00	100.00	5.00	--	500.00		
	AK colony main road		1.00	145.00	6.00	--	870.00		
	Ak colony 1st A cross road		1.00	119.00	6.60	--	785.40		
	SRK school Road		1.00	110.00	4.50	--	495.00		
							4691.84	11.66	54706.85
21	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table								
	For Laying DBM/ Profile Correction	Cum							
	1st cross road								
	ch 0-25		1.00	5.00	2.00	0.05	0.50		
	2nd cross road								
	ch 0-45		1.00	5.00	3.60	0.05	0.90		
	3rd cross road								
	ch 0-55		1.00	10.00	2.35	0.05	1.18		
	4th c/s road								
	ch 0-70		1.00	10.00	4.25	0.05	2.13		
	6th croos road		1.00	100.00	3.60	0.05	18.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	6th A Cross road		1.00	90.00	1.35	0.05	6.08		
	6th B cross road		1.00	25.00	1.80	0.05	2.25		
	AK colony main road		1.00	20.00	4.35	0.05	4.35		
	Ak colony 1st A cross road		1.00	34.00	2.30	0.05	3.91		
	SRK school Road		1.00	42.00	1.20	0.05	2.52		
	Bad reaches		5.00	2.00	1.60	0.05	0.80		
			4.00	1.80	0.90	0.05	0.32		
			6.00	1.50	0.80	0.05	0.36		
			13.00	1.50	1.00	0.05	0.98		
							44.26	6435.26	284850.35
22	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&I WTD S.R 2016-17)								
	For Laying BC	Cum							
	1st cross road								
	ch 0-25		1.00	25.00	4.00	0.04	4.00		
	2nd cross road								
	ch 0-45		1.00	45.00	4.00	0.04	7.20		
	3rd cross road								
	ch 0-55		1.00	55.00	4.30	0.04	9.46		
	4th c/s road								
	ch 0-70		1.00	70.00	3.80	0.04	10.64		
	6th cross road		1.00	100.00	4.30	0.04	17.20		
	6th A Cross road		1.00	90.00	4.00	0.04	14.40		
	6th B cross road		1.00	100.00	5.00	0.04	20.00		
	AK colony main road		1.00	145.00	6.00	0.04	34.80		
	Ak colony 1st A cross road		1.00	119.00	6.60	0.04	31.42		
	SRK school Road		1.00	115.00	4.50	0.04	20.70		
							169.82	7270.54	1234654.02
23	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&I WTD SR 2016-17)								

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Edge line	Sqm	2	864.00	0.15	--	259.20		
							259.20	542.72	140673.02
							Total Construction Cost		6836088.094
24	Add cost of Waste Plastic @ 8% of Bitumen weight								
	Bitumen = 141 kg/cum		--	--	--	--	1915.52	27.00	51719.00
	Waste = 169.82 X 141 X 8 / 100 = 1915.52								
25				Cost towards Preparation of DPR LS					41017.00
26				Cost towards PMC / Third Party inspection LS					68361.00
								Sub Total	6997185.09
27				Miscellaneous and rounding off					2814.91
								Total	7000000.00

Certificate.

- 1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
- 2 The provisions made in the estimate are necessary and essential.
- 3 The workspot was inspected and work is found to be necessary.
- 4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

For Tejus Consultants

Assistant Engineer

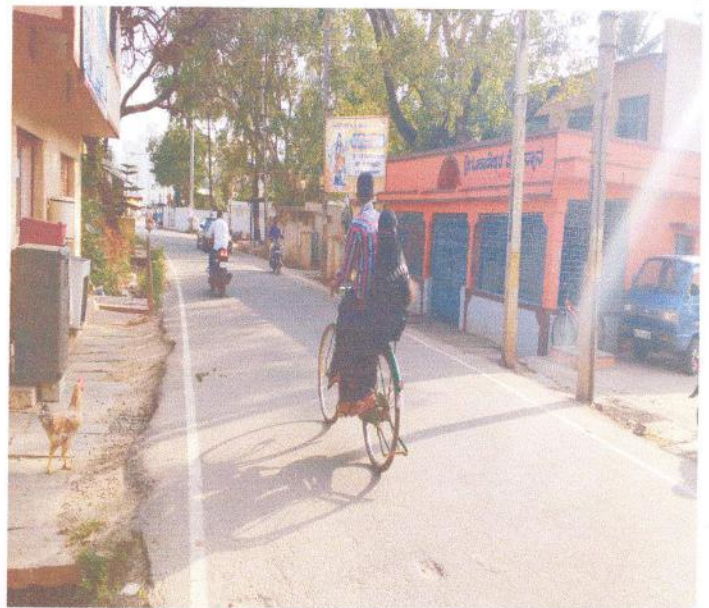
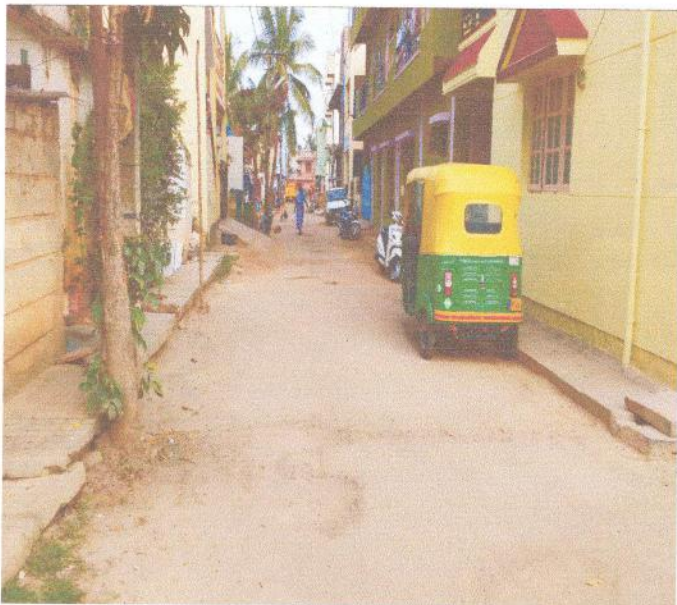
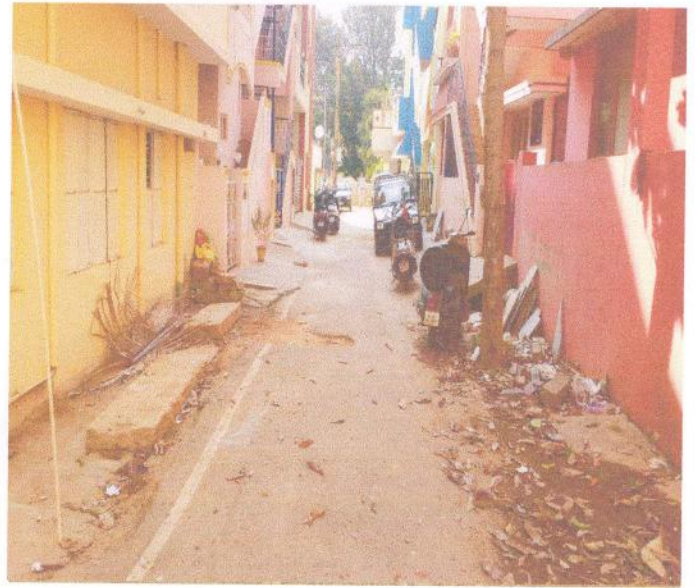
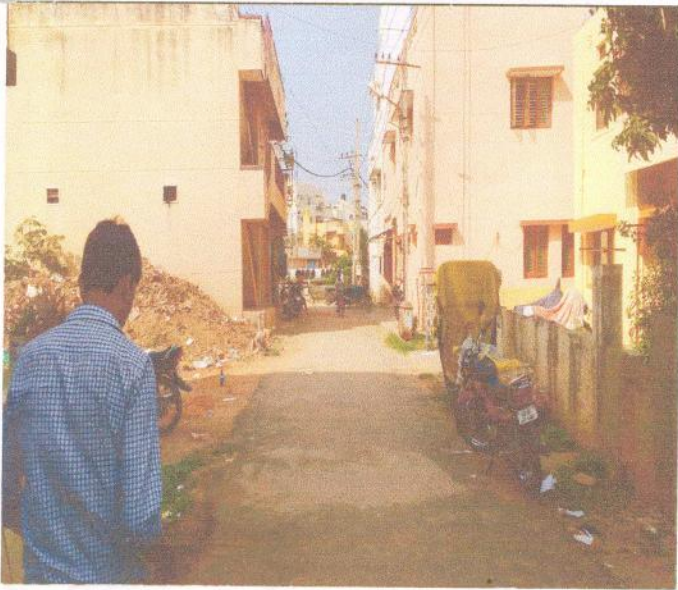
Assistant Executive Engineer
Assistant Executive Engineer.
 Kodigehalli Sub Division,
 Yelahanka Zone, B.B.M.P.,
 Bangalore.

Executive Engineer
Executive Engineer
 Byatarayanapura Division
 BBMP, Bangalore-92

Technical Sanction
 Accorded For 70.00 lakh Rs.
 Head of A/C..... P.3158
 CER NO : 154 Dt: 04/03/17

TA
 CE (YNK)

EXISTING VIEWS OF KODIGEHALLI



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Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.M.P.

